

We claim:

1. A heat exchanger which is symmetrical with respect to rotation and is heated by a heat transfer medium, the heat exchanger comprising a thermal roller driveable for rotation having forward flow means and return flow means for the heat transfer medium, and at least one shut-off device for shutting off at least one of the forward flow means and rearward flow means when a forward flow pressure and/or rearward flow pressure of the heat transfer medium drops significantly or drops to zero.

2. The heat exchanger according to claim 1, comprising a valve each in a forward flow duct and rearward flow duct of the heat transfer medium in a roller neck of the thermal roller, such that flow into the thermal roller and return flow from the heat exchanger can be shut off.

3. The heat exchanger according to claim 2, wherein each valve is located fully or partially between the heat exchanger and a rotary lead-in connection for the heat transfer medium.

4. The heat exchanger according to claim 2, wherein the valves are check valves.

5. The heat exchanger according to claim 3, wherein the valves are configured to prevent heat transfer medium from leaking out after the rotary lead-in connection has been disassembled.